

ENVIRONMENTAL CHECKLIST

Purpose of checklist:

The State Environmental Policy Act (SEPA), Chapter 43.21C RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the agency identify impacts from your proposal (and to reduce or avoid impacts from the proposal, if it can be done) and to help the agency decide whether an EIS is required.

Use of checklist for nonproject proposals:

Complete this checklist for nonproject proposals, even though questions may be answered "does not apply." In addition, complete the supplemental sheet for nonproject actions (Part D).

For nonproject actions, the references in the checklist to the words "project," "applicant," and "property or site" should be read as "proposal," "proposer," and "affected geographic area," respectively.

A. BACKGROUND

1. Name of proposed project, if applicable:

Boeing Lease of Property at City Light's Duwamish
Substation for Wind Tunnel Facility

2. Name of applicant:

City of Seattle, City Light Department

3. Address and phone number of applicant and contact person:

Environmental Affairs Division
1015 - 3rd Avenue
(1111 Building, Suite 325)
Seattle, WA 98104

Contact: Charlie Raines (386-4575)

4. Date checklist prepared:

August 31, 1990

5. Agency requesting checklist:

SCL 05370

City of Seattle, City Light Department

6. Proposed timing or schedule (including phasing, if applicable).

October 1990

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

This DNS applies solely to City Light's lease action. Pursuant to this action, the Boeing Company plans to construct a 600,000 square foot wind tunnel facility at the site which is expected to draw up to 200 MW of electricity. This is a significant impact and a project-specific environmental impact statement (EIS) should be completed to evaluate these impacts. City Light routinely evaluates the the lifetime energy costs of major industrial projects.

A project-specific EIS is needed even though a non-project EIS may be prepared as part of a Boeing proposal to redevelop approximately 4.3 miles of the industrial area in the Duwamish Valley corridor. The Boeing redevelopment proposal includes a wind tunnel facility as discussed above; however, since a project design is not yet available, site-specific impacts and appropriate mitigation measures cannot be adequately identified or assessed at this time. The City of Tukwila is the lead agency for the redevelopment proposal EIS.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

Master Plan Redevelopment Proposal for the Duwamish Valley corridor. Draft Non-Project EIS issued by The Boeing Company. July 1990.

Baseline Soil and Groundwater Quality Assessment Seattle City Light Long-Term Lease Option. Roy F. Weston, Inc. May 1990.

Duwamish Substation Breaker Pads Soil Testing (90-A). Raven Services. April 20, 1990.

Duwamish Oil Containment Project:

DNS - issued by Seattle City Light. January 23, 1990.

PCB Testing at Duwamish Substation and a Private Residence (88-11). Raven Services Corporation. 1988.

Contaminant Testing of Surplus Property North of Duwamish Substation (87-15). Raven Services Corporation. 1987.

Duwamish Bulkhead Repair Project:

DNS - issued by Seattle City Light. October 28, 1984.
404 permit. October 7, 1985.
Shoreline permit. July 26, 1985

PCB Soil Testing at Three City Light Substations: Bothell, Duwamish, and South (85-3). Raven Services Corporation. 1985.

Soil Characterization Report. Laucks Testing Laboratories, Inc. July 18, 1985.

Final Programmatic Environmental Impact Statement, Means of Meeting Peak Electrical Demands. Seattle City Light Office of Environmental Affairs. May 26, 1981

East, West, and Duwamish Waterways Navigation Improvement Study: Final Feasibility Report and EIS.

U.S. Army Corps of Engineers. September 1980.
Note: This report outlines a development proposal involving approximately 6 acres of City Light property at Duwamish Substation. The proposal identifies this area as a possible location for future fisheries enhancement and public access projects.

Proposed 70-MW Combustion Turbine Facility at Duwamish Substation. Mechanical Engineering Unit. May 1976.

Environmental Impacts of Siting Combustion Turbine Generating Units at Duwamish Substation. D.B. Pennel. June 13, 1975.

Environmental Assessment of Gas Turbine Generating Units, Site Alternatives. Mechanical Engineering Unit. February 1974

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.
 - a. The City of Tukwila is the lead agency overseeing Boeing's preparation of a programmatic EIS designed to

analyze the impacts associated with redevelopment of a 4.3 mile industrial area in the Duwamish valley. This plan involves the redevelopment of obsolete manufacturing facilities into a campus of modern developmental engineering facilities. In general, site development plans are not yet available, however, some site uses and square footage estimates for individual projects have been completed.

b. King County plans to develop a multi-purpose recreational trail along the Duwamish Waterway. The County has conditioned its approval of a Shoreline permit for an oil containment project at Duwamish Substation to receiving a trail easement across City Light property. King County plans to construct a bike path across the easement area. The trail would extend northward along the western edge of Duwamish Substation and adjacent property. Such a trail would restrict certain development options at City Light's Duwamish property and could affect this lease action.

c. Seattle Engineering Department's Solid Waste Utility identified the Duwamish site as one of four possible locations for a solid waste incinerator and energy plant. The incinerator project has been cancelled but could be reactivated in the future. A long-term lease action would preclude consideration of the Duwamish property for an incinerator site for the next 25-50 years.

d. City Light's 1990-91 Strategic Corporate Plan lists the Duwamish Substation property as a candidate site for a 70 MW stand-alone combustion turbine which would require approximately 15 acres. This option is a "Candidate for Endorsement" and is expected to be proposed for endorsement within the next two years. However, construction of a wind tunnel facility at the site would preclude other development options for the next 25-50 years.

10. List any governmental approvals or permits that will be needed for your proposal, if known.

No governmental approvals or permits are required for City Light's lease action; however, the proposed wind tunnel facility would likely require a number of permits including the following:

King County Department of Planning and Community Development, Division of Building and Land Development
- Shoreline Substantial Development Permit
- Building Permit

King County Department of Public Works, Division of
Surface Water Management

- Flood Control Zone Permit

Other Approvals and Governmental Reviews:

- National Pollution Discharge Emissions Permit
- Oil Spill Prevention Control Plan
- Waste Minimization Plan
- Fish and Wildlife Coordination Act Consultation
(U.S. Fish and Wildlife Service)
- Noise Control
- Puget Sound Air Pollution Control Authority
- Archaeological approval (Washington Office of
Archaeology and Historic Preservation_)

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)

City Light is considering a proposal to lease approximately 16 acres of undeveloped land immediately north of the Duwamish Substation to the Boeing Company for a 25 to 50 year term. Also see Part A. #7 for additional discussion of possible future site development plans.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

a. The project area is located at 10000 West Marginal Way South.

b. It is on the west side of the Duwamish Waterway near river mile 5 at the head of navigation.

c. The project area is zoned MH (heavy manufacturing) and has an urban designation in King County's Shoreline Management Plan.

d. The property's legal description is as follows:

That portion of Tracts 1,2,3,4,23, 48, 49, 50, and 51, Moore's Five Acre Tracts, as recorded in Volume 9 of plats page 28, records of King County, Washington, Vacated Margaret Avenue and Vactated Burns Street in the northwest quarter of Section 4, Township 23 North, Range 4 East, W.M., lying northerly of the following described line:

Beginning at the northwest corner of Section 4, Township 23 North, Range 4 East, W.M. King County, Washington.

thence South 88 5'46" East along the north line of said Section 4, 1384.09 feet;

thence South 13 52'14" East 459.276 feet to the TRUE POINT OF BEGINNING of said line;

thence South 77 00'07" West 704.481 feet;

thence North 89 57'25" East 259.052 feet to the terminus of said described line; (containing approximately 15.93 acres).

B. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site (underline one):

Flat, rolling, hilly, steep slopes, mountainous.

b. What is the steepest slope on the site (approximate percent slope)?

At the eastern edge of the property, along the Duwamish Waterway, there is an approximately 80% vertical slope.

c. What general types of soils are found on the site (e.g., clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.

The site primarily contains loosely layered silty sand and clayey soils.

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

No, although there are some liquifiable organic soils in the immediate vicinity.

- e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.

Does not apply to this lease action. However, subsequent site development will require substantial grading and filling to level the site.

- f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

Erosion could occur along the steep, eastern edge of the property if existing vegetation were removed during site development.

- g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

Does not apply. Also see Part A. #7. Note: since the project area currently is undeveloped any subsequent construction will likely result in coverage of a significant portion of the site.

- h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

Does not apply. Also see Part A. #7.

2. Air

- a. What types of emissions to the air would result from the proposal (i.e., dust, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities, if known.

Does not apply. Also see Part A. #7. Future site development activities would likely result in dust and fumes from construction equipment. The potential for emissions from the wind tunnel facility are not known but should be evaluated as part of any future environmental review.

- b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

Does not apply.

- c. Proposed measures to reduce or control emissions or other impacts to air, if any:

Does not apply.

3. Water

a. Surface:

- (1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

There are two water bodies in the immediate project vicinity. The eastern edge of the leased land is bordered by the Duwamish Waterway at approximately river mile 5 near the head of navigation. The Duwamish Waterway is designated Class B by the Washington Department of Ecology and flows into Elliot Bay. Hamm Creek, a small fresh-water tributary to the Duwamish, borders the western edge of the property.

- (2) Will the project require any work over, in, or adjacent to (within 200 feet) the described water? If yes, please describe and attach available plans.

Yes. As described in Part A. #3.a.(1) above, the boundaries of the project area extend from the ordinary high water mark of the Duwamish Waterway to the western edge of Hamm Creek. Also see attached property sketch.

- (3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

Does not apply. Also see Part A. # 7.

- (4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities, if known.

Does not apply. Also see Part A. 7.

- (5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.

Yes. Also see Part A. #3.a.(1) and #3.a.(2).

- (6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

The lease proposal is expected to restrict the unauthorized release of both hazardous and non-hazardous substances, including thermal pollution of surface waters.

b. Ground:

- (1) Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities, if known.

During Roy F. Weston's environmental assessment (1990) three groundwater monitoring wells are installed on the site. These wells were purged of 3 to 4 casing volumes prior to sampling and 3 groundwater samples were collected and analyzed for VOCs and selected conventional water quality parameters (i.e., alkalinity, chloride, sulfate, sodium, iron, manganese). These wells probably will be abandoned when the site is developed. Future site assessments may require additional groundwater sampling. No discharge to ground water is expected in conjunction with these sampling activities or the lease action.

- (2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: domestic sewage; industrial, containing the following chemicals...; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number

of animals or humans the system(s) are expected to serve.

Does not apply. Also see Part A. #7.

c. Water Runoff (including storm water):

- (1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

Storm water runoff flows unrestricted into both the Duwamish Waterway and Hamm Creek. The site also contains a primitive drainage system that was installed by the U.S. Army Corps of Engineers to drain dredge spoils placed on the site in 1985. The outfall for this drainage system empties directly into the Duwamish Waterway.

- 2) Could waste materials enter ground or surface waters? If so, generally describe.

At present, the undeveloped nature of the site would permit waste materials to enter both ground and surface waters.

- d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:

Does not apply. Also see Part A. #7. This will be an important area for review once a project design for the site is developed. Mitigation measures including set-backs from stream and river banks and the provision of landscaped or open spaces should be included as part of any future site development plan.

4. Plants

- a. Check or underline types of vegetation found on the site:

☐ deciduous tree: alder, maple, aspen, other
☐ evergreen tree: fir, cedar, pine, other
☒ shrubs
☒ grass
☐ pasture
☐ crop or grain

- x wet soil plants: cattail, buttercup,
 bullrush, skunk cabbage, other
- water plants: water lily, eelgrass, milfoil,
 other
- other types of vegetation

b. What kind and amount of vegetation will be removed or altered?

Does not apply. Also see Part A. #7. However, subsequent construction activities such as grading and filling would eliminate most types of vegetation at the site.

c. List threatened or endangered species known to be on or near the site.

None.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

Does not apply. Also see Part A. #7. Enhancement of shoreline and stream bank areas protection as well as maintenance of stream flows during critical spawning periods should be required prior to approval of construction at the site.

5. Animals

a. Underline any birds and animals which have been observed on or near the site or are known to be on or near the site:

Birds: hawk, heron, eagle, songbirds, other:
shorebirds, mallards, Bonaparte's gulls and Canada
geese.

Mammals: deer, bear, elk, beaver, rabbits, _____
_____.

Fish: bass, salmon, trout, herring, shellfish,
steelhead trout, sea-run cutthroat trout, _____
_____.

b. List any threatened or endangered species known to be on or near the site.

None, although an eagle has been sighted several miles downstream at Kellogg Island.

c. Is the site part of a migration route? If so, explain.

(1) birds: The site is on the Pacific flyway and waterfowl migrations pass through the area.

(2) fish: Anadromous steelhead, salmon, and sea-run cutthroat trout migrate in the Duwamish/Green River system. Additionally, Coho and other species of salmon migrate up Hamm Creek.

d. Proposed measures to preserve or enhance wildlife, if any:

Does not apply. Also see Part A. #7 and Part B #4 d.

6. Energy and Natural Resources

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

This lease action has no direct energy impacts. The Boeing Company's proposed wind tunnel facility would have significant energy impacts which should be fully addressed in a project-specific EIS. Also see Part A. #7.

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

No.

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

See Part A. #7. In general, City Light requires mitigation of significant energy impacts by requiring conservation, interruptible load contracts, and energy efficiency measures. A comprehensive analysis of energy use associated with the wind tunnel project will be a key component of a project-specific review.

7. Environmental Health

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a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.

(1) Describe special emergency services that might be required.

None.

(2) Proposed measures to reduce or control environmental health hazards, if any:

The lease agreement requires the Boeing Company to comply with all current and future environmental laws. The lease agreement also stipulates that the lessee will not cause, permit or allow the presence of Hazardous substances on or about the leased land in violation of these same laws and regulations.

b. Noise

(1) What types of noise exist in the area that may affect your project (e.g., traffic, equipment, operation, other)?

Traffic noise from West Marginal Way South; overheard flights; and, noise from adjacent properties including a boat manufacturing plant and marine storage yard; these activities should not affect this lease action.

The noise impacts of a high-speed wind tunnel facility are unknown at this time but should be evaluated in a project-specific review to determine appropriate mitigation and control measures.

(2) What types and levels of noise would be created by or associated with the project on a short-term or long-term basis (e.g., traffic, construction, operation, other)? Indicate what hours noise would come from the site.

Does not apply. Also see Part A. #7 and Part B #7 b (1).

(3) Proposed measures to reduce or control noise impacts, if any:

Does not apply. Also see Part A. 7 and Part B. #7 b(1)..

8. Land and Shoreline Use

- a. What is the current use of the site and adjacent properties?

Currently the site is an unimproved open field. It is bordered on the south by Seattle City Light's Duwamish Substation, an electrical distribution facility. Delta Marine, a boat manufacturer, leases the area along the project area's northeren boundary.

- b. Has the site been used for agriculture? If so, describe.

No.

- c. Describe any structures on the site.

None.

- d. Will any structures be demolished? If so, what?

No.

- e. What is the current zoning classification of the site?

MH (heavy manufacturing)

- f. What is the current comprehensive plan designation of the site?

Industrial (1964).

- g. If applicable, what is the current shoreline master program designation of the site?

Urban.

- h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.

No, with the following exceptions:

(1) There is a possibility of seismic hazard due to liquefiable soils in the area, but the shoreline and project area are not classified "environmentally sensitive."

(2) The Duwamish Waterway and Hamm Creek contain anadromous fish.

- i. Approximately how many people would reside or work in the completed project?

Does not apply. Also see Part A. #7.

- j. Approximately how many people would the completed project displace?

None.

- k. Proposed measures to avoid or reduce displacement impacts, if any:

Does not apply.

- l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

Does not apply. Also see Part A. #7.

9. Housing

- a. Approximately how many units would be provided, if any? Indicate whether high-, middle-, or low-income housing.

Does not apply.

- b. Approximately how many units, if any, would be eliminated? Indicate whether high-, middle-, or low-income housing.

None.

- c. Proposed measures to reduce or control housing impacts, if any:

Does not apply.

10. Aesthetics

- a. What is the tallest height of any proposed structure(s), not including antennas: what is the principal exterior building material(s) proposed?

Does not apply. Also see Part A. #7.

- b. What views in the immediate vicinity would be altered or obstructed?

Does not apply. Also see Part A. #7.

- c. Proposed measures to reduce or control housing impacts, if any:

Does not apply.

11. Light and Glare

- a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

Does not apply.

- b. Could light or glare from the finished project be a safety hazard or interfere with views?

Does not apply. Also see Part A. #7.

- c. What existing off-site sources of light or glare may affect your proposal?

Does not apply.

- d. Proposed measures to reduce or control light and glare impacts, if any:

Does not apply.

12. Recreation

- a. What designated and informal recreational opportunities are in the immediate vicinity?

Currently, there are no designated recreational opportunities in the immediate project area, although King County plans to develop a multi-purpose recreation path along the Duwamish. The project area is occasionally used for bird watching; trespassing on the bulkhead for ORV use and fishing has also been noted.

In addition, there is a small landscaped area outside the southeast corner of the substation. A short (1,100 feet), five-foot wide path runs along the Duwamish shoreline from the landscaped area. This trail and the landscaped area were developed by City Light in conjunction with the Duwamish Bulkhead rehabilitation. These areas provide public access to the Waterway and enhance the appearance of the shoreline.

Also see Part A. #9.

- b. Would the project displace any existing recreational uses? If so, describe.

No, but it would prohibit bird watching at the site.

- c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

City Light will provide a 12 to 30 foot easement along the western edge of its Duwamish Substation property. King County plans to use the easement area to construct a multi-purpose recreation trail.

13. Historic and Cultural Preservation

- a. Are there any places or objects listed on, or proposed for, national, state, or local preservation registers known to be on or next to the site? If so, generally describe.

There is an archaeological site and a historic structure approximately 2 miles down river from the project area.

- b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.

None.

- c. Proposed measures to reduce or control impacts, if any:

Does not apply.

14. Transportation

- a. Describe below public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.

See attached site plan.

- b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?

No; approximately .5 mile.

- c. How many parking spaces would the completed project have? How many would the project eliminate?

Does not apply. Also see Part A. #7.

- d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).

No.

- e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

The project area lies in a flight path leading to the King County Airport. The Union-Pacific railroad and the Duwamish Waterway, which is maintained as a navigable waterway, are in the immediate project vicinity.

- f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

Does not apply. Also see Part A. #7.

- g. Proposed measures to reduce or control transportation impacts, if any:

Does not apply. Also see Part A. #7.

15. Public Services

- a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.

Does not apply.

- b. Proposed measures to reduce or control direct impacts on public services, if any.

Does not apply, although Boeing typically provides on-site security, and emergency medical and fire protection services for its sites.

16. Utilities

- a. Underline utilities currently available at the site:

electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other

- b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

Does not apply. Also see Part A. #7.

C. SIGNATURE

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: 
Charles Raines

Title: Associate Environmental Analyst

Date Submitted: August 31, 1990

Approved by: _____
Kirvil Skinnarland

Title: Director, Environmental Affairs Division

Date: _____